CURRENTLY PENDING CLAIMS

For the convenience of the Examiner, the following lists the claims pending in the application and is intended to replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (previously presented): Method for the analysis of surfaces, particularly for the detection of defects on semiconductor wafers, which comprises checking individual pixels of the surface under control, and detecting suspected pixels by collecting the signature of each pixel, defined by the way in which the pixel alone responds to the light of a scanning beam without reference to adjacent pixels, and determining whether said signature has the characteristics of a signature of a faultless or of a pixel that is defective or suspect to be defective.

2. (original): Method according to claim 1, comprising analyzing the signature of each pixel to determine the presence of foreign particles.

3. (original): Method according to claim 1, wherein a pixel signature is defined by an array of signature components, each of which is a signal which corresponds to the intensity of the light scattered by the pixel in a fixed direction.

4. (original): Method according to claim 1, comprising detecting defective or suspect pixels by a method chosen from among the group consisting of comparing the pixel signature to a master signature, comparing parameters of the pixel signature to ranges of acceptable parameters, or determining the position of the pixel signature in a statistics of such signatures.

5. - 25. (canceled).

26. (previously presented):   A method of analyzing the surface of a semiconductor wafer comprising:

illuminating a portion of the surface of the semiconductor wafer with light;

detecting light scattered by the illuminated portion of the surface of said semiconductor wafer as individual pixel signatures, said pixel signature being defined without reference to adjacent pixels;

evaluating said pixel signatures according to a predetermined criterion;

discriminating between valid and at least one of suspect and defective pixels.

27. (previously presented):   The method of claim 26, wherein a plurality of pixels is illuminated and checked concurrently.

28. (previously presented):   The method of claim 26 further comprising outputting a defect list of detected defective pixels.

29. (previously presented):   The method of claim 26 wherein said detecting step comprises detecting the intensity of light at a plurality of locations disposed about the illuminated portion of the surface.